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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,799	07/14/2003	Glenn H. McGall	2719.2012-004	7882

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EXAMINER
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SHIBUYA, MARK LANCE

ART UNIT	PAPER NUMBER
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1639

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/619,799

**Applicant(s)**

MCGALL ET AL.

**Examiner**

Mark L. Shibuya

**Art Unit**

1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-22 are pending.

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
- I. Claims 1-4, drawn to a compound of Formula I, classifiable in class 568, subclass 21.
  - II. Claims 5-9, drawn to a substrate for solid phase synthesis of Formula II, classifiable in class 530, subclass 334.
  - III. Claim 10, drawn to a method of synthesizing small ligand molecules on a solid support, classifiable in class 536, subclass 25.3.
  - IV. Claims 11-14, drawn to a compound of Formula VI, classifiable in class 549, subclass 265.
  - V. Claim 15, drawn to a substrate for solid phase synthesis of oligonucleotides, classifiable in class 536, subclass 25.3.
  - VI. Claim 16, drawn to a substrate bound, fluorescently labeled oligonucleotide, classifiable in class 536, subclass 24.3.
  - VII. Claim 17, drawn to a different substrate bound, fluorescently labeled oligonucleotide, classifiable in class 536, subclass 24.3.
  - VIII. Claims 18-21, drawn to a selectively cleavable linkage molecule, classifiable in class 558, subclass 70.
  - IX. Claim 22, drawn to a substrate for use in solid phase synthesis, classifiable in class 530, subclass 334.

Art Unit: 1639

The inventions are distinct, each from the other because of the following reasons:

Groups I, II and IV-IX represent separate and distinct products. They differ in respect to their structures and chemical properties and therefore have different issues regarding patentability and enablement and represent patentably distinct subject matter. In the instant case, the products of Groups I and II, Groups IV-VII and Groups VIII and IX are completely different in structure. Groups I and II are compounds having a disulfide moiety, Groups IV-VII contain a spiro lactone and Groups VIII and IX have a 1,3-diol. Furthermore, the product of Group I is different from Group II because the product of Group II is on a solid support. The compound of Group I could be used for a different purpose than in the substrate of Group II, such as in solution phase synthesis. The same is true for the products of Groups VIII and IX.

The products of Groups IV-VII are different for the following reasons. The product of Group IV is different from Group V because the product of Group V is on a solid support. The compound of Group IV could be used for a different purpose than in the substrate of Group V, such as in solution phase synthesis. Moreover, the compound of Group IV could be used as a fluorescent tag for many different molecules, or alone as an assay reagent. Also, the substrate of Group V could be used as a solid phase fluorescence assay reagent. The substrate bound, fluorescently labeled nucleotides of Groups VI and VII are different because of their structure (sequence) and would have different reactivities and would require different chemistry for their formation.

Inventions of Groups I-II and the Inventions of Group III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, as stated above, the compound of Group I could be used for a different purpose than in the substrate of Group II, such as in solution phase synthesis. The product as claimed in Group II can be used in a materially different process such as a solid phase scavenger reagent in a solution phase system.

Group III is unrelated to Groups IV-IX. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, Group III is defined as a method for using the substrate defined in Group II, and does not have any relationship to the compounds and substrates of Groups IV-IX. The products of Groups IV-IX have completely different structures than the substrate (Formula IIb) used in Group III.

These inventions have acquired a separate status in the art as shown by their different classification and/or divergent subject matter and would require different searches. Please note that even though some of these groups are classified in the same class/subclass, this has no effect on the non-patent literature search. The different inventions listed would require completely different searches in these databases, and there is no expectation that the searches would be coextensive.

Therefore an undue search burden exists and restriction for examination purposes as indicated is proper.

***Election of Species***

3. This application contains claims directed to the following patentably distinct species of the claimed invention: Upon election of one of restricted Groups I-IX, applicant is further required to elect an single, specific compound species of the various chemical formulae, as set forth in the claims and Groups, wherein said specific compound is specified as to atom and bond, and as appropriate for the elected Group.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 5, 10, 11, 15, 16, 17, 18, and 22 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. For this response to be complete and for search purposes, applicants should provide the ***chemical structure of elected compounds species***, wherein each specific formula substituents of each of the above identified elected species are defined either by picture, or by expressing the species in terms of the variables of the formula. Thus, applicant should provide, for search purposes, a chemical structure of a particular elected distinct species claimed. The provided chemical structure of the elected species must depict a single molecule, from which a search is to commence.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

Art Unit: 1639

remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark L. Shibuya whose telephone number is (571) 272-0806. The examiner can normally be reached on M-F, 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Wang can be reached on (571) 272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark L. Shibuya  
Examiner  
Art Unit 1639

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